PARTITIONED VECTOR PROCESSING

ABSTRACT OF THE DISCLOSURE

A system and method for calculating memory addresses in a partitioned memory in a processing system having a processing unit, input and output units, a program sequencer and an external interface. An address calculator includes a set of storage elements, such as registers, and an arithmetic unit for calculating a memory address of a vector element dependent upon values stored in the storage elements and the address of a previous vector element. The storage elements hold STRIDE, SKIP and SPAN values and optionally a TYPE value, relating to the spacing between elements in the same partition, the spacing between elements in the consecutive partitions, the number of elements in a partition and the size of a vector element, respectively.